



Research & Enterprise at the University of Glasgow

Starting Companies – Why do Universities do it? Workshop on University Innovation - St Petersburg

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Summary

Universities engage in a wide range of Knowledge Transfer activities. In undertaking these activities, the University may be addressing any one of a wide range of objectives. This applies to company creation, where the University's objectives and motivations can vary enormously across a spectrum ranging from Public Good to making money. Across this spectrum, the University operates in different modes.

- When doing Public Good, the University is acting as an agent of Economic Development
- When seeking to make money, the University is acting as a venturer.

The Public Good and money-making objectives are, almost without exception, incompatible at the project level. It is vital that the University and other participants are clear on the objectives of the project and what mode the University is operating in on a project. Confusion between money-making objectives and Public Good objectives leads inevitably to difficulty and usually failure of a project.

The Spectrum of Knowledge Transfer

The University of Glasgow believes Knowledge Transfer activities can be described as occurring across a spectrum of objectives from outreach to outcome:

Outreach activities: the university acts as an agent of economic development, carrying out activities designed to benefit the economy. The beneficiaries of these activities are companies, students and the wider economy. These activities cost money, but the university does not make money from these activities. Economic development is a specific objective.

Funding for these activities should be considered to be the same as those for economic development agencies, effectively, funding is provided, on an ongoing basis, to the university so that it can deliver activities that lead to economic development. Public funding for public good.

Outcome activities: the university acts as a venturer in the same way as a company, entrepreneur or investor, carrying out activities (normally the exploitation of valuable Intellectual Property) designed to make a financial return to the university. The university is a beneficiary and should make money to reinvest in research and teaching. Economic development is a by-product of successful activity.

Funding for these activities should be considered to be the same as those for other venturers, effectively pump-priming or start-up support, requiring the university to make the activity profitable and self-sustaining.

A fuller version of the spectrum is shown at Attachment 1.

Company Creation

When applied to University involvement in company creation, the University must be clear as to why it is involved. It must be clear that it is helping to create companies, either:

As an outreach activity – helping entrepreneurs and students to create companies as an economic development activity. The University's objective is to stimulate economic activity and does not expect to directly benefit financially. In general the costs of these activities should be covered by funding from the Public Sector, or;

As an outcome activity – investing the University's intellectual and other capital in a venture which it hopes will succeed economically and will deliver financial returns to the University, usually through equity participation, dividends and royalty payments. In these projects, the University risks its own resources and risks loss of these resources if the project fails.

It is important to stress that both motivations are equally valid for an institution, but should not be confused. In outreach mode the University operates as a Public Sector agency, whereas in outcome mode, the University operates as a Private Sector body.

Examples

To clarify the model, two hypothetical examples were given.

1. University IP used as the basis for a new optoelectronic device manufacturing firm. The company receives £8m venture capital investment for £14m valuation and the University retains 25% equity post investment. The University agrees a 3% royalty on sales, which are forecast at £5m per annum from year 3. The company is setting up in China to be close to growth markets and low manufacturing costs. It has acquired a Scottish consultancy company and will relocate this company and its 20 employees (all trained to PhD level) to China for the start-up phase. Success?

As an outcome project, yes. The University's IP has been converted into equity worth millions of pounds and has the potential of an ongoing royalty stream of £150,000 per annum.

As an outreach project, no. The local economy is losing this technology and company to China. The impact on the University's local economy will be very small. In addition, the local economy is losing 20 existing, high-quality jobs to China (much to the annoyance of the local Regional Development Agency).

2. Two Research Assistant whose contracts are about to expire set up a two-person web-design company based on the skills they learned during their research projects. They set the company up in an incubator provided by the Regional Development Agency, where rents are very low to encourage new-start companies. The University provides some marketing and technical advice to the company and helps them to apply for a small government grant. The University has no equity or licence agreement with the company as there is no University IP involved. The company is quite successful in its first year and wins the Design-Start-Up of the year award, receiving lots of press coverage. The award is presented by the Minister for Enterprise who congratulates the company and the highly supportive and entrepreneurial University which supported it. The University is featured in a European Commission best-practice document and senior officers of the University are invited to speak at international panels, alongside the Regional Development Agency, on how to create an entrepreneurial environment in a University. Success?

As an outcome project, no. The University has no stake in the company and will not directly benefit financially from the company's success. It is likely that the project has cost the University a small amount of money in providing the support.

As an outreach project, yes. The local economy has a new, successful company, which is closely associated with the University. The Regional Development Agency is happy and the University's

reputation is enhanced through the publicity and profile associated with the company's success and the University's role in supporting it.

So, success depends very much on what you are trying to achieve. If the University wishes only to make money from creating companies, it must not engage in projects like example 2. If the University wants to play a positive and supportive role in the local economy and be applauded for doing so, it must not expect to make money.

In Glasgow, we believe that both approaches are equally legitimate and we do both – BUT NOT AT THE SAME TIME. We manage a portfolio of projects, some outreach and some outcome. We do not confuse the two.

In conclusion

- Both modes – outreach and outcome – are legitimate for the University.
- The objectives, motivations, risks and rewards are very different.
- The University can manage both within a portfolio approach.
- The University must not confuse the two – disaster will follow.

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Attachment 1

← Outreach Objectives → Outcome Objectives

	Outreach Activities	Research & Technology Development	Contract Research	Licensing	Venturing Activities
Reasons for doing	Public good, economic development, business development, marketing, engagement with the community	Knowledge creation, infrastructure-building	Knowledge creation, IP creation, development of technology for markets	Development of channels to market for technologies, financial returns	Development of vehicles to take technology to markets, financial returns.
Types of Costs	People, events, travel	Research costs	Marketing costs, Research costs, legal costs (contracts/IP)	IP protection costs, marketing costs, legal costs (licenses)	IP protection costs, business planning, legal costs (licenses, mem & arts), marketing costs
Financial Returns	None	Funding for research, RAE (indirect and longer term)	Funding for research, overhead recovery (profit)	License income, upfront payments, milestone payments	Equity gains, dividends, royalties
Scale of returns	None (cover costs at most)	Cover costs at most	Breakeven to Modest	Often modest, can be significant	Can be significant
Financial Risks	Negligible	Low	Modest	Modest/significant	Significant
Examples	Student placements, SME networks, student companies	Charity funded research, collaborative research	Company funded research	Licenses with companies	Spin-out companies, start-up companies